REMARKS/ARGUMENTS

(1)

The Examiner makes the restriction requirement final and restricts continued prosecution to claims 82-95, with the species of Compound 5.

Applicants cancel claims 1-81 and reserve the right pursuant to 35 U.S.C. § 121 to file one or more divisional applications directed to the non-elected subject matter during the pendency of the present application.

(2)

The Examiner rejects claims 82, 87, 89 and 94 under 35 U.S.C. § 112, Second Paragraph on the ground that the rejected claims are allegedly indefinite. Specifically, the Examiner alleges that the claims employ the language "comprising" in defining different Markush members of the compounds or moieties, and it is improper to use the term "comprising" in reciting members of Markush groups. The Examiner recommends the term "consisting of".

Applicants amend claims 82, 87, 89, and 94, according to the Examiner's recommendation, replacing "comprising" with "consisting of" in defining Markush members; no new matter is added by the amendment. The Examiner is respectfully requested to withdraw the pending rejection to claims 82, 87, 89 and 94 under 35 U.S.C. § 112, Second Paragraph in view of the present amendment. Claims 85 and 92 are cancelled; the Examiner's rejection of these claims is obviated.

(3)

The Examiner rejects claims 82 and 89 under 35 U.S.C. § 112, First Paragraph, alleging that the application does not comply with the enablement requirement. The Examiner notes that the rings containing Vs where one V is NR_{12}, are enabled (i.e., the piperidines), but that enablement is lacking for the remaining subject matter, wherein more than one V is NR_{12}. The Examiner specifically states that starting materials and methods to make such compounds must be provided. The Examiner further notes, in regards to the group "L" which provides between

2-10 atoms separation between M and Q, that the term "2-10" atoms encompasses any atom of the periodic table, but that no starting material for compounds wherein L contains any atom other than "C" can be found.

Applicants respectfully traverse the Examiner's rejection. The MPEP §2164.01 sets forth the test of enablement as "whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation". United States v. Telectronic, Inc., 857 F. 2d 778, 785 (Fed. Cir. 1988). However, "a patent need not teach, and preferably omits, what is well known in the art." In re Buchner, 929 F. 2d 660, 661 (Fed. Cir. 1991); Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1384 (Fed. Cir. 1991). Applicants submit that the current disclosure when filed, contained sufficient information together with information known in the art, to enable those skilled in the art to make and use the claimed invention where the ring containing V has more than one V that is NR_{12}, and wherein the substituent L contains atoms other than carbon.

(a) Regarding V rings where more than one V is NR_{12}.

Applicants submit the disclosure teaches that the ring containing V is introduced as an amine-substituted heterocyclic ring. The amino derivative of ring V is incorporated into the compounds of the invention via a nucleophilic aromatic substitution reaction. See, Scheme 1, coupling of the V ring (R) to Compound 1 forming Compound 2. With a suitable starting material, having an amine-substituted ring containing more than one NR_{12}, those skilled in the art would know how to prepare the compounds of the invention by following the synthesis scheme disclosed, to produce compounds where the ring containing V includes two or more nitrogen atoms.

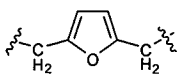
Applicants further submit that 6-membered saturated heterocycles having more than one ring nitrogen were well known in the art when the application was filed. For example, Beilstein reports a preparation of 1,2-dimethyl-4-aminopiperidazine in an article from 1994 (see Exhibit A). It also reports availability of hexahydro-pyrimidin-2-ylamine at least as early as 1954 (see Exhibit B). It also reports availability of 6-amino-[1,3,5]triazinane-2,4-dione at least as early as 1977 (see Exhibit C). Thus amine-substituted heterocycles having 2 or 3 ring nitrogen atoms were available in the art before the application was filed. As stated in the MPEP, the enablement

analysis includes consideration of knowledge in the prior art. By using these starting materials, in the methods taught in the specification, the person of ordinary skill would have been able to prepare compounds across the scope of the invention, including one where more than one V represents NR_{12}.

Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claims 82 and 89 under 35 U.S.C. § 112, First Paragraph.

(b) Regarding L groups where not all atoms separating Q and M are carbon atoms.

Applicants submit the disclosure taught that substituent L was incorporated into the molecule as an aldehyde derivative of -Q-L-acyl via a cyclization reaction that forms the imidazole ring from a diamine plus a benzalkehyde. See, Scheme 1, page 98, coupling of Compounds 2 and 3 to form Compound 4. With a suitable benzaldehyde containing a group that corresponds to L having atoms other than carbon, those skilled in the art would know how to prepare the compounds of the invention by following the synthesis scheme disclosed, including those where the atoms of group L are not all carbon atoms.

Applicants further submit that the syntheses of benzaldehydes having L moieties in which the atoms providing the 2-10 atoms separation between Q and M are not all carbon atoms were well known in the art when the application was filed. For example, Beilstein reports preparations of (3-formyl-phenoxy)-acetic acid derivatives at least as early as 1886 (see Exhibit D, where L = $-O-CH_2-$). It also reports availability of (5-formyl-2-hydroxy-3-methoxy-benzylsulfanyl)-acetic acid at least as early as 1993 (see Exhibit E, where L = $-CH_2SCH_2-$). It also reports availability of 4-[2-acetylamino-3-(3-formyl-4-phosphonooxy-phenyl)-propionylamino]-4-dipentylcarbamoyl-butyric acid at least as early as 1998 (see Exhibit F, where L = $-(CH_2)_3-N-(CH_2)_3-$). Further, benzaldehydes where the L moiety includes a heterocyclic group in the chain were also known in the art. For example, Beilstein reports preparation of [5-(3-formyl-benzyl)-furan-2-yl]-acetic acid methyl ester at least as early as 1997 (see Exhibit G, where L = ). Thus, L groups having oxygen, sulfur and nitrogen atoms, and heterocycles within the chains were available in the art before the application was filed. As

stated in the MPEP, the enablement analysis includes consideration of knowledge in the prior art; thus the availability of these starting materials, combined with the methods taught in the specification would have enabled a person of ordinary skill to prepare compounds across the scope of the invention. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claim 82 and claimed dependencies therefrom under 35 U.S.C. § 112, First Paragraph.

Regarding to claim 89, Applicants respectfully submit the rejection based on group L is not applicable. Examiner's rejection focuses on that the disclosure does not enable L group having non-carbon atoms. Claim 89 as amended recites "L is selected from the group consisting of (E) isomer of –CH=CH-, (Z) isomer of –CH=CH-, and mixtures of (E) and (Z) isomers of -CH=CH-." Since all the selections for group L contains only carbon atoms, claim 89 should not be rejected for the L group having non-carbon backbone atoms. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claim 89 and claimed dependencies therefrom under 35 U.S.C. § 112, First Paragraph.

In addition, Applicants add new claim 96 which depends from claim 82 and particularly recites that the backbone atoms of the L group are all carbon atoms. No new matter is added by the amendment, and the new claim is not susceptible to this rejection because it contains no linking atoms other than carbon.

(4)

The Examiner rejects claim 82 under 35 U.S.C. § 112, Second Paragraph as being indefinite for failing to ascertain the scope of "M". Specifically, the Examiner alleges that "M" "is part of a compound which is structural for the compounds. There is no nexus of the functional limitation, i.e., 'capable of complexing with a deacetylase catalytic site' as claimed. It is unclear what constitutes such functional moiety." The Examiner recommends that the structural delineation for the moiety be clearly identified.

Applicants amend claim 82 to add the structural definitions of M that is in claim 85; claim 85 is then cancelled. No new matter is added by the amendments. Applicants submit that this amendment to independent claim 82 should overcome the Examiner's rejection under 35 U.S.C. § 112, Second Paragraph and respectfully request withdrawal of the rejection of claim 82.

(5)

The Examiner rejects claim 82 under 35 U.S.C. § 102(a) or (f) as being anticipated by Vourloumis et al. Tetrahedron Lett. 44 (2003) 2807-2811 ("Vourloumis") and supplemented with CA139:133505. The Examiner alleges that Vourloumis et al. disclosed anticipatory compounds wherein the M moiety is nitro. Specifically, the Examiner states "the chemical structure of the compounds have been delineated by CA 139:133505 wherein the L is a bond, M is nitro, R2, R4, R5 are H, R3 is carbonyl, R12 is carbonyl (RN569355-55-1)."

Applicants submit Vourloumis does not anticipate claim 82, because it does not teach a compound where the L group is at least 2 atoms in length. Independent claim 82 recites that "L is a substituent providing between 2-10 atoms separation between M and the Q substituent." As alleged by the Examiner, Vourloumis teaches only compounds wherein L is a bond; Vourloumis therefore cannot anticipate claim 82 because it does not disclose a compound wherein L is at least two atoms in length. Applicants respectfully request withdrawal of the rejection of claim 82 under 35 U.S.C. § 102(a) or (f) as being anticipated by Vourloumis et al.

(6)

The Examiner provisionally rejects claims 82-89 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 109-144 of copending Application No. 10/803,580. The Examiner alleges that even though the conflicting claims are not identical, they are not patentably distinct because the instant claims fully embraced the copending scope. The Examiner further suggests that a timely filed terminal disclaimer may be used to overcome the rejection.

Applicants note that the conflicting application No. 10/803,580 is commonly owned with the current application. Applicants request that this rejection be held in abeyance until allowable and overlapping subject matters have been identified.

(7)

Applicants amend the recitation of L in claim 89 to correct a typographical error and for clarity. L was originally depicted as "E, Z or mixtures of E/Z $-CH_2=CH_2-$", which appears to

show two pentavalent carbons. The person of ordinary skill would have known that the pentavalent carbons were a drawing error. Moreover, in view of the description of the linker as "E, Z or mixtures of E/Z,' the person of ordinary skill would have realized that the structure for L should have been –CH=CH- instead of $-CH_2=CH_2-$. That change makes the structure of L consistent with the isomeric designations provided in the claim (E and Z are well known ways to describe geometric isomers of substituted olefins like the L group of the invention). Both the error in the way L was drawn (having pentavalent carbon atoms) and the correction (removal of the subscripts '2' so the carbon atoms of linker L are tetravalent, as they must be, and so they also form a double bond, which makes them consistent with the use of the E and Z isomer designations) would have been obvious to a person of ordinary skill; therefore, the correction of that error is not new matter. In re Oda, 443 F.2d 1200, 1206 (CCPA 1971).

Applicants amend claim 89 to recite "L is selected from the group consisting of (E) isomer of -CH=CH-, (Z) isomer of -CH=CH-, and mixtures of (E) and (Z) isomers of -CH=CH." This is what original claim 89 inherently disclosed. The amendment explicitly describes the claimed structures of the claimed linking group L; no new matter is added by the amendment.

(8)

Applicants amend claim 89 replacing the selections of M to those recited in claim 92; Applicants then cancel claim 92. No new matter is added by the amendments.

(9)

Applicants add new claims 97-106 which depend from claim 82 and claim each M substituent recited in claim 86 independently; no new matter is added by the amendment.

(10)

Applicants add new claims 107-116 which depend from claim 89 and claim each M substituent recited in claim 93 independently; no new matter is added by the amendment.

(11)

Applicants add new claim 117 to claim a particular –L-M group. Support for the

amendment may be found in original claim 89; no new matter is added by the amendment.

(12)

Applicants amend claims 83-84, 86-88, 90-91 and 93-95 to correct informalities; no new matter is introduced by the amendments.

(13)

Applicants acknowledge with appreciation receipt of an initialed copy of the IDS filed on July 26, 2006, indicating it has been considered by the Examiner.

CONCLUSION

Applicants earnestly believe that they are entitled to letters patent, and respectfully solicit the Examiner to expedite prosecution of this patent application to issuance. Should the Examiner have any questions, the Examiner is encouraged to telephone the undersigned.

Respectfully submitted,

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